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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/686,588

10/17/2003

Ryo Nihei

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9359

21171

7590

12/09/2004

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EXAMINER

RO, BENTSU

ART UNIT

PAPER NUMBER

2837

DATE MAILED: 12/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,588

Applicant(s)

NIHEI ET AL.

Examiner

Bentsu Ro

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-8, 11-13 and 15 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 9, 10 and 14 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/30/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

FIRST OFFICE ACTION

1. Amendment of claim 1 is required as follows:

- Claim 1, line 3, change "an" to --a--.

2. The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 11, 15 and 6-8 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Masaki et al US Patent No. 4,492,847. (This reference was cited by applicant in PTO-1449, filed 4/30/2004.)

Claims read onto Masaki et al teaching as follows:

<u>The claims:</u>	<u>Masaki et al teaching:</u>
1. A robot with a sensor, the robot comprising: sensor means and sensor disposal position changing means for changing a (not "an") disposal position of the sensor means from one position to another,	Fig. 1 shows a robot 10; Fig. 5 shows a manipulator arm 18 of the robot 10 and a sensing assembly 148; the sensing assembly 148 of Fig. 5 is a sensor means; Fig. 6 shows an air actuator 170 which is a sensor disposal position changing means for changing a disposal position of the sensing assembly 148 from a sensing position 154 to an inoperative position 156

wherein a plurality of positions including positions at and around a robot arm are set in advance as positions where the sensor means is disposed.	and vice versa; the two positions 154 and 156 are "a plurality of positions" set in advance; the positions 154 and 156 are also at and around the robot arm 18, see Fig. 5.
2. A robot with a sensor according to claim 1, wherein one of the plurality of sensor means disposal positions is provided in an acting position where the sensor means is used while mounted to a tip end of the robot arm and another is provided in a retreat position where the sensor means retreats from the acting position when not used.	 the sensing assembly 148 in the sensing position 154; the sensing assembly 148 in the inoperative position 156, see Fig. 6.
3. A robot with a sensor according to claim 2, wherein the acting position of the sensor means is near working means mounted to the tip end of the robot arm and the retreat position is on the robot arm.	 Fig. 6 shows a welding torch 146 which is a working means; the sensing assembly 148 in the sensing position 154 is an acting position where the sensing assembly 148 is near the welding torch 146; the sensing assembly 148 in the inoperative position 156 is a retreat position; at the retreat position as well as at the acting position, the sensing assembly 148 is always on the robot arm.
11. A robot with a sensor according to claim 1, wherein the sensor means is a visual sensor having a camera for taking a two-dimensional image.	Fig. 2 shows a sensing unit 56, including lens 60 and fiber optic bundle 62 connected to a camera 32 (shown in Fig. 1).
15. A robot with a sensor according to	

<p>claim 1, wherein</p> <p>the sensor disposal position changing means is formed of driving means provided to an arm</p> <p>having a wrist at its tip end</p> <p>to drive the sensor means forward and backward to a working position and a retreat position,</p> <p>working means of the robot being mounted to the wrist.</p>	<p>Fig. 6 shows air actuator 170 and actuator 176, these are driving means provided to an arm 18 (shown in Fig. 5);</p> <p>Fig. 5 shows a wrist 21 at the tip end of the arm 18;</p> <p>Fig. 6 shows the air actuator 170 and the actuator 176 for moving the sensing assembly 148 between the sensing position 154 and inoperative position 156;</p> <p>Fig. 5 shows the welding torch 146 mounted to the wrist 21.</p>
<p>Claim 6.</p>	<p>similar to that of claim 1, but slightly broader.</p>
<p>Claims 7 and 8.</p>	<p>similar to that of claims 2 and 3, respectively.</p>

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masaki et al.

Regarding these claims, Masaki et al do not show a measuring sensor or a force sensor. It is noted, however, that a special type of working device requires a special

Art Unit: 2837

type of sensing device. For example, in an assembly line, the sensing device probably would be a force sensor or a torque sensor, whereas in a manufacturing line, the sensing device probably would be a measuring sensor.

It is noted that the Masaki's robot can be used in an assembly line or in a manufacturing line.

6. Claims 4, 5, 9, 10, 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. Any inquiry concerning this communication should be directed to Bentsu Ro at telephone number (571) 272-2072.

12/4/2004

Bentsu Ro
Senior Examiner
Art Unit 2837

A handwritten signature in black ink that reads "Bentsu Ro". The signature is written in a cursive, flowing style with a large, stylized 'B' and 'R'.